

Title (en)

INDIVIDUAL HYDRAULIC ROTOR BLADE PITCH CONTROL, ROTOR HUB AND ROTOR PROVIDED WITH IT

Publication

EP 0321336 B1 19910417 (FR)

Application

EP 88403169 A 19881213

Priority

FR 8717500 A 19871215

Abstract (en)

[origin: EP0321336A1] The invention relates to a hydraulic device for the individual control of the pitch of a rotor blade (9) by means of a rotary hydraulic jack, the stator vanes (20) of which are fixed to a sleeve (18) fitted onto the hub (1). The jack rotor (21) carries rotor vanes movable relative to the stator vanes (20) and delimiting with these chambers of variable volume fed by a servo-distributor controlled as a function of pilot signals and of signals from a detector (50) of the angular position of the blade (9) about its pitch axis (X-X). <??>The rotary hydraulic jack for controlling the pitch of the blade (9) is integrated in an incidence bearing (18, 22-23) and in an elastic ball joint (21, 33, 38-39) integrated in a hydro elastic rotary shock-absorber (21, 33, 45) with vanes (46) for the lamination of a viscous fluid. The shock-absorber rotor (33) is connected rigidly in terms of rotation about the pitch axis (X-X) to the rotor (21) of the rotary hydraulic jack and is attached to the blade (9) by means of a rigid cuff (14). <??>The invention is used for controlling the main rotors of helicopters, in particular for introducing a multi-cycle control. <IMAGE>

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US 4534704 A 19850813 - MCARDLE FRANCIS H [US]

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